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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,472	04/06/2005	Fabrice TP Saffre	361891	5331

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2109	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/530,472	SAFFRE, FABRICE TP	
	Examiner	Art Unit	
	Sulaiman Nooristany	2109	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-28 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f)..

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 07/08/2005.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. This Office Action is response to the application (10/53472) filed on 06 March 2005.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 23, 25, 26, and 28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 25 and 28, they are directed toward a computer data signal embodied in a carrier wave. A signal embodied in a carrier wave is not a process, machine, manufacture, composition of matter or improvement thereof and is therefor non-statutory.

Regarding claims 23 and 26, it is directed to a computer program per se. A computer program is not a physical "thing" because they are not computer components and are not acts being performed and are therefore not statutory.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by **Gregerson** U.S patent No. **5,526,358.**

4. Regarding Claims 1 & 12, Regarding claim 1, Gregerson teaches a method of operating a node in a network (A method for independently executing software components in a node of a network containing many nodes, Abstract, Lines 1-2) the network comprising a hierarchical structure in which a node is considered to be at a higher level than a parent node to which it connects when joining the network (the Area Manager is crucial to the orderly function of PLN, which is built from the ground up by filling the Area Manager role before any other role in the hierarchy, Col. 7, Lines 23-27), the node being adapted to: (a) maintain a primary connection to a node at a lower level in the network hierarchy (the primary roles played by the various managers between the Network Manager and Area Manager, Col. 7, Lines 11-12); (b) to attempt to maintain a specified number N of further connections between the node and other nodes in the network (The kernels dynamically locate one another in real-time to form and maintain a hierarchical structure that supports a virtually unlimited number of independently running kernels, Col. 2, Lines 53-56); and (c) upon receipt of a request from a further node desiring to form its primary connection with the node, and in the event that none of the N connections of the node is unallocated (Another technique locates resources requested by a node in a scalable system interconnecting many nodes in a network,

Abstract, Lines 6-8)then to: select one of the further connections which is not a primary connection for one of the other nodes; and to re-allocate that selected further connection to the further node so as to form the primary connection for the further node (The technique includes identifying resources that join the network by switching from an inactive to an active state; and informing the requester the availability of the requested resource, Abstract, Lines 8-11).

5. Regarding Claims 2 and 13, Gregerson teaches a node according to claim 1, as described above. Gregerson further teaches wherein step (b) comprises the node forming one or more connections with other nodes on the same level in the network as the node (Fig. 7, 9 &14).

6. Regarding Claims 3 and 14, Gregerson teaches a node according to claim 1, as described above. Gregerson teaches the node further adapted to attempt to maintain the specified number of N further connections between the node and other nodes in the network by periodically carrying out the following step (listening for routing information packets which are periodically broadcast by other context bridges, Abstract, Lines 15-16): for each unallocated one of the N connections, selecting a node from one or more candidate nodes, and forming a connection with the selected node (A kernel enters the network by running the Login process to locate its parent kernel, Col. 7, Lines 56-67), until either the N further connections have been successfully completed or there are no more candidate nodes (the child kernel sends a login request to the parent and waits for

an acknowledgement. If a login broadcast is not received, the child kernel continues to listen for a login broadcast until the end of the wait period, Col. 8, Lines 1-6).

7. Regarding Claims 4 and 15, Gregerson teaches a node according to claim 3, as described above. Gregerson further teaches wherein-the step of selecting the peer node comprises selecting at random from the one or more candidate nodes (The present invention is a dynamic, symmetrical, distributed, real-time, peer-to-peer system comprised of an arbitrary number of identical, Col. 2, Lines 46-53, The role(s) assumed by any node within the managerial hierarchy employed is arbitrary, i.e., any node can assume one or multiple roles within the hierarchy, Col. 3, Lines 12-16)

8. Regarding Claims 5 and 16, Gregerson teaches a node according to claim 3, as described above. Gregerson further teaches wherein the step of selecting the node comprises selecting on the basis of the range of the candidate nodes to the node (The configuration parameter MaxStatus imposes a ceiling on the highest level of which the kernel can be a manager. A kernel at level n is termed to be a child of its parent kernel at level n+1, Col. 7, Lines 39-44)

9. Regarding Claims 6 and 17, Gregerson teaches a node according to claim 5, as described above. Gregerson further teaches wherein the network comprises an overlay network formed over an underlying network of nodes (Fig. 14, underlying mix of physical topologies, Col. 2, Lines 59-60), and wherein the range between a candidate node and

the node comprises the number of links between them in the underlying network (A kernel at level n is termed to be a child of its parent kernel at level n+1 provided that the two kernels have the same name above level n, Col. 7, Lines 39-44).

10. Regarding Claims 7 and 18, Gregerson teaches a node according to claim 1, as described above. Gregerson teaches the node further adapted to join the network by performing the steps of: selecting a parent node from one or more prospective parent nodes of the network (A kernel enters the network by running the Login process to locate its parent kernel, Col. 7, Lines 56-67), wherein the selected parent node is the node which is lowest in the network hierarchy; and joining the network by forming a primary connection to the selected parent node (A kernel at level n is termed to be a child of its parent kernel at level n+1, Col. 7, Lines 39-44).

11. Regarding Claims 8 and 19, Gregerson teaches a node according to claim 7, as described above. Gregerson further teaches wherein adapted to identify another node as a prospective parent node on the basis of the range of the other node to the node (the parent kernel will nominate a successor from among its children by nominating the winner of an election process which it performs on its children, Col. 12, Lines 5-8, Fig. 15-16).

12. Regarding Claims 9 and 20, Gregerson teaches a node according to claim 7, as described above. Gregerson further teaches wherein adapted to identify another node

as a prospective parent node if it is within a specified range of the node (the parent kernel will nominate a successor from among its children by nominating the winner of an election process which it performs on its children, Col. 12, Lines 5-8, Fig. 15-16).

13. Regarding Claims 10 and 21, Gregerson teaches a node according to claim 1, as described above. Gregerson further teaches wherein the event that the primary connection fails (PLN employs a system of "heartbeat" messages, which is used to monitor the status of nodes within the network and identify network failures, Col. 6, Lines 22-24), to re-establish a primary connection with another node which is at a lower level in the network hierarchy than the node (PLN handles the election of managers, the transparent reestablishment of management hierarchies as a result of physical network faults, Col. 6, Lines 20-22).

14. Regarding Claims 11 and 22, Gregerson teaches a network, comprising a plurality of nodes each according to claim 1, as described above. Gregerson further teaches wherein the specified number N of connections is substantially the same for every node (A kernel at level n is termed to be a child of its parent kernel at level n+1 provided that the two kernels have the same name above level n, Col. 7, Lines 39-44).

15. Regarding Claims 23 and 26, Gregerson teaches a computer program comprising instructions for causing one or more processors to operate as the node according to claim 1, as described above (The PIPES software includes a PIPES

Application Programmer Interface for communicating with Apps. A-C, Col. 5, Lines 4-7). Gregerson further teaches wherein when the instructions are executed by the processor or processors (A method for independently executing software components in a node of a network containing many nodes, Abstract, Lines 1-2).

16. Regarding Claims 24 and 27, Gregerson teaches a storage medium (Database, Col. 12, Line 53) carrying computer readable code representing instructions for causing one or more processors to operate as the node according to claim 1, as described above. Gregerson further teaches wherein when the instructions are executed by the processor or processors (The node at which the resource originates first checks its local resource database to determine whether a resource with the same name already exists, Col. 12, Lines 51-54; specifically, Gregerson requires executing code for causing the processors to operate as a node, which also requires a storage medium).

17. Regarding Claims 25 and 28, Gregerson teaches a computer data signal embodied in a carrier wave and representing instructions for causing one or more processors to operate as the node according to claim 1, as described above. Gregerson further teaches wherein when the instructions are executed by the processor or processors (The system is designed to support all forms of digitized communication, including voice, sound, still and moving images, mass file transfer, traditional transaction processing and any-to-any conferencing such as "groupware" applications would require. The system is also designed to operate over any type of networking

protocol and medium, including ISDN, X.25, TCP/IP, SNA, APPC, ATM, etc, Col. 2, Lines 66-67, Col. 3, Lines 1-5)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sulaiman Nooristany whose telephone number is (571) 270-1929. The examiner can normally be reached on *M-F** from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu, can be reached on (571) 272-6798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sulaiman Nooristany

James K. Trujillo
Primary Examiner
TC 2100